

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended): A vacuum processing system comprising:
 - a vacuum chamber for defining an inner space capable of being evacuated;
 - a first load-lock mechanism capable of holding and transferring a process object into and out of the vacuum chamber in a state that the vacuum chamber is maintained vacuum;
 - a second load-lock mechanism capable of holding and transferring a process object into and out of the vacuum chamber in the state that the vacuum chamber is maintained vacuum;
 - an external arm disposed outside of the vacuum chamber and being capable of holding ~~the~~ a process object and capable of carrying ~~the~~ a held process object into ~~either~~ the first load-lock mechanism ~~or~~ and capable of carrying a held process object into the second load-lock mechanism;
 - a first robot arm disposed outside of the vacuum chamber and being capable of transferring the process object between a stock site outside of the vacuum chamber and the first load-lock mechanism and between the stock site and the external arm; and
 - a second robot arm disposed outside of the vacuum chamber and being capable of transferring the process object between the stock site and the second load-lock mechanism and between the stock site and the external arm.
2. (Previously presented): The vacuum processing system according to claim 1, further comprising:

a buffer disposed outside of the vacuum chamber for temporarily holding the process object,

wherein the first robot arm and the second robot arm are capable of carrying the process object to the buffer and are capable of carrying the process object from the buffer.

3. (Previously presented): The vacuum processing system according to claim 1, further comprising:

a control apparatus for controlling the first robot arm and the external arm in such a manner that the first robot arm carries a first process object from the stock site to the external arm, thereafter carries a second process object held by the first load-lock mechanism to the stock site, and during a period while the first robot arm carries the second process object, the external arm carries the first process object into the first load-lock mechanism.

4. (Previously presented): The vacuum processing system according to claim 3, wherein the control apparatus controls the first robot arm, the second robot arm and the external arm in such a manner that the second robot arm carries a third process object from the second load-lock mechanism to the buffer, in parallel to this operation the first robot arm carries a fourth process object from the stock site to the external arm, thereafter the first robot arm carries the third process object from the buffer to the stock site, and in parallel to this operation the external arm carries the fourth process object into the second load-lock mechanism.

5. (Previously presented): The vacuum processing system according to claim 1, further comprising:

a holding mechanism disposed in the vacuum chamber, the holding mechanism being capable of holding a process object and moving the process object from a process position where the process object is processed to a load position and from the load position to the process position; and

an internal arm capable of exchanging a process object at the load position with a process object held by the first or second load-lock mechanism, while the holding mechanism holds a process object at the load position.

6. (Previously presented): The vacuum processing system according to claim 5, wherein the internal arm comprises a first arm and a second arm both capable of swinging independently, the first and second arms are supported at different positions in a swing axial direction, the first arm is capable of swinging in a first swing direction to move a process object at the load position to the first load-lock mechanism, and at the same time the second arm is capable of swinging in a second swing direction reverse to the first swing direction to move another process object from the first load-lock mechanism to the load position and the first arm is capable of swinging in a third swing direction to move a process object at the load position to the second load-lock mechanism, and at the same time the second arm is capable of swinging in a fourth swing direction reverse to the third swing direction to move another process object from the second load-lock mechanism to the load position.

7. (Previously presented): The vacuum processing system according to claim 1, further comprising:

an aligner disposed outside of the vacuum chamber for receiving a process object from the first robot arm, adjusting a posture of the process object, and passing the process object whose posture was adjusted to the external arm,

wherein the external arm receives the process object from the first robot arm via the aligner.

8. (Previously presented): A vacuum processing system comprising:

a vacuum chamber for defining an inner space capable of being evacuated;

a first load-lock mechanism capable of holding and transferring a process object into and out of the vacuum chamber in a state that the vacuum chamber is maintained vacuum;

a holding mechanism disposed in the vacuum chamber, the holding mechanism being capable of holding a process object and moving the process object from a process position where the process object is processed to a load position and from the load position to the process position; and

an internal arm capable of exchanging a process object at the load position with another process object held by the first load-lock mechanism, while the holding mechanism is capable of holding a process object at the load position,

wherein the internal arm includes a first arm and a second arm both capable of swinging independently, the first and second arms are supported at different positions in a swing axial direction, the first arm is capable of swinging in a first swing direction to move a process object at the load position to the first load-lock mechanism, and at the same time the second arm is

capable of swinging in a second swing direction reverse to the first swing direction to move another process object from the first load-lock mechanism to the load position.

9. (Previously presented): The vacuum processing system according to claim 1, wherein the external arm disposed outside of the vacuum chamber is capable of carrying the held process object into the first load-lock mechanism and is capable of carrying the held process object into the second load-lock mechanism.

10. (New): The vacuum processing system according to claim 8, wherein the first load-lock mechanism and the second load-lock mechanism are placed at different positions on a plane perpendicular to the swing axial direction, the swing axial is disposed at an equi-distance from the first load-lock mechanism and the second load-lock mechanism.